

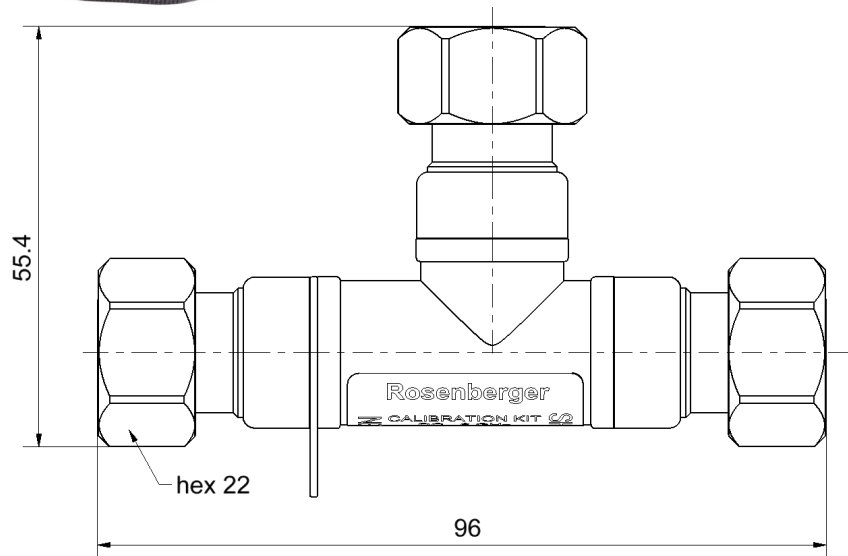
Technical Data Sheet

Rosenberger
Rosenberger Site Solutions, LLC

4.3-10

Calibration Kit
Plug

64S36R-MSOS3



All dimensions are in mm; tolerances according to ISO 2768 m-H

Interface

According to

IEC 61169-54

Documents

N/A

Material and plating

Connector parts

Center conductor
Outer contact
Coupling nut
Body
Dielectric
Substrate

Material

CuBe
Stainless steel
Brass
Brass
PTFE
Al₂O₃

Plating

Gold, min. 1.27 µm, over nickel
Passivated
White bronze(e.g. Optalloy®)
White bronze(e.g. Optalloy®); powder-coated

Electrical data

Frequency range DC to 6 GHz

Open

Return loss ≤ 0.15 dB, DC to 6 GHz

Error from nominal phase¹ $\leq 3.0^\circ$, DC to 6 GHz

Short

Return loss ≤ 0.15 dB, DC to 6 GHz

Error from nominal phase² $\leq 2.0^\circ$, DC to 6 GHz

Load

Return loss ≥ 40 dB, DC to 2.5 GHz

≥ 38 dB, 2.5 GHz to 6 GHz

DC-Resistance $50 \Omega \pm 0.5 \Omega$

Power handling ≤ 1.0 W

¹ The nominal phase is defined by the Offset Delay, the Offset Loss and the Fringing Capacitances

² The nominal phase is defined by the Offset Delay, the Offset Loss and the Short Inductance

Mechanical data

Mating cycles ≥ 100

Maximum torque 5 Nm

Recommended torque 2 Nm

Gauge 2.75 mm to 2.90 mm

General standard definitions

For proper operation the vector network analyzer (VNA) needs a model describing the electrical behaviour of this calibration standard. The different models, units, and terms used will depend on the VNA type and they will have to be entered into the VNA. All values are based on typical geometry and plating.

Open

Offset Z_0 / Impedance / Z_0 50 Ω

Offset Delay 80.823 ps

Length (electrical) / Offset Length 24.23 mm

Offset Loss 0.70 G Ω /s

Loss 0.0098 dB/ $\sqrt{\text{GHz}}$

Fringing Capacitances $C_0 = -20.4856 \times 10^{-15}$ F / -20.4856 fF

$C_1 = 9226.83 \times 10^{-27}$ F/Hz / 9.22683 fF /GHz

$C_2 = -2013.96 \times 10^{-36}$ F/Hz² / -2.01396 fF /GHz²

$C_3 = 130.730 \times 10^{-45}$ F/Hz³ / 0.13073 fF /GHz³

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Plug**64S36R-MSOS3****Short**

Offset Z_0 / Impedance / Z_0	50 Ω		
Offset Delay	80.823 ps		
Length (electrical) / Offset Length	24.23 mm		
Offset Loss	0.70 G Ω /s		
Loss	0.0098 dB/ $\sqrt{\text{GHz}}$		
Short Inductance	$L_0 = 0.0000 \times 10^{-12}$ H	/	0.0000 pH
	$L_1 = 0.0000 \times 10^{-24}$ H/Hz	/	0.0000 pH/GHz
	$L_2 = 0.0000 \times 10^{-33}$ H/Hz ²	/	0.0000 pH/GHz ²
	$L_3 = 0.0000 \times 10^{-42}$ H/Hz ³	/	0.0000 pH/GHz ³

Load

Offset Z_0 / Impedance / Z_0	50 Ω
Offset Delay	0.0000 ps
Length (electrical) / Offset Length	0.000 mm
Offset Loss	0.00 G Ω /s
Loss	0.0000 dB/ $\sqrt{\text{GHz}}$

Environmental data

Operating temperature range ³	0 °C to +50 °C
Storage temperature range	-55 °C to +90 °C
RoHS	compliant

³ Temperature range over which these specifications are valid.**Packing**

Standard	1 pce in bag
Weight	258 g/pce

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
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